

IN THE CLAIMS:

Please delete claims 1-15 without prejudice or disclaimer of the subject matter recited therein and please insert new claims 16-33.

Claims 1-15 (Canceled)

16. (New) A method of connection management in a communications system, which is suitable for packet switched data transmission and which includes at least one serving node, at least one access system and terminals, said communications system being adapted for having a first logical connection relating to a terminal between the serving node and the access system and a second, upper-level logical connection relating to the terminal between the terminal and the serving node, the method comprising the steps of:

releasing the first logical connection between the serving node and the access system when the first logic connection is inactive, so that the second logical connection remains between the serving node and the terminal; and

reconnecting the first logical connection between the serving node and the access system when transmission of user data begins.

17. (New) The method of claim 16, wherein the first logical connection is released between the serving node and the access system, when terminal's communications on the first logical connection have been idle for a pre-established time.

18. (New) The method of claim 17, wherein the pre-established time is set for the connection based on the service class.

19. (New) The method of claim 16, wherein the first logical connection is released between the serving node and the access system, when a shortage of resources occurs on this transmission distance and the first connection is idle.

20. (New) The method of claim 16, wherein information on release of the first logical connection is signaled between the serving node and the terminal.

21. (New) The method of claim 16, wherein information on the need for reconnection of the first logical connection is signaled between the serving node and the terminal.

22. (New) The method of claim 16, further comprising the step of:

preventing the release of the first logical connection between the serving node and the access system, when some unit in the communications system has such user data, which is intended for relaying over this connection.

23. (New) The method of claim 16, wherein the communications system is a mobile communications system.

24. (New) The method of claim 23, wherein the connection of the mobility management protocol is released between the serving node and the access system, so that the connection of the upper level connection protocol between the serving node and the terminal remains.

25. (New) A communications system, which is suitable for packet switched data transmission and which includes at least one serving node, at least one access system and terminals, said communications system being adapted for having a first logical connection relating to a terminal between the serving node and the access system and a second, upper-level logical connection relating to the terminal between the terminal and the serving node, the communications system comprising connection management equipment for releasing the first logical connection between the serving node and the access system during data transmission non-activity relating to the first logical

connection so that the second logical connection remains between the serving node and the terminal and for reconnecting this first logical connection, when traffic activity starts.

26. (New) The communications system of claim 25, wherein the connection management equipment comprises:

monitoring equipment for identifying activity and non-activity of the user data traffic on the terminal's communication connection;

at least one timer for measuring an uninterrupted non-activity period in the relaying of user data; and

state control equipment for releasing the first logical connection between the serving node and the access system, when a pre-established time has passed as measured by the timer, and for reconnecting the first logical connection between the serving node and the access system, when the relaying of user data resumes.

27. (New) The communications system of claim 26, wherein an operation and management system controls setting of the timer.

28. (New) The communications system of claim 26, wherein the timer's setting depends on the service class.

29. (New) The communications system of claim 25, the connection management equipment further comprising:

resources monitoring equipment for monitoring the degree of reservation of the connection identifiers of connections between the serving node and the access system.

30. (New) The communications system of claim 25, wherein the connection management equipment comprises:

monitoring equipment for identifying activity and non-activity of the user data traffic on the terminal's first connection;

resources monitoring equipment for monitoring the degree of reservation of the connection identifiers of connections between the serving node and the access system; and

state control equipment for releasing the first logical connection between the serving node and the access system, when there is a shortage of connection identifiers and the connection is idle, and for reconnecting the first logical connection between the serving node and the access system, when relaying of user data resumes.

31. (New) The communications system of claim 25, the connection management equipment also comprising signaling equipment for signaling of release and reconnection of the first logical connection between the serving node and the terminal.

32. (New) The communications system of claim 25, wherein the access system is a radio network subsystem.

33. (New) The communications system of claim 25, wherein the terminal is a mobile station.